ATTACHMENT J.9

GOVERNMENT OF THE DISTRICT OF COLUMBIA DEPARTMENT OF GENERAL SERVICES



Brian Hanlon Director 2000 14th St. NW Washington, D.C. 20009 Phone: (202) 727-2800

Modernization

FRANK W. BALLOU SENIOR HIGH SCHOOL



Description: The new 345,000-GSF Ballou Senior High School is planned for construction on the site of the existing Ballou High School in Ward 8. It will accommodate a general student population of 1,400 plus 900 STAY Academy students. In order to avoid the costs and disruption of relocating the existing school population, the new school will be constructed in two phases. During the first phase, the new school building will be built in the location of the existing football stadium. During the second phase, the existing school will be demolished and the new stadium and other site work will be constructed in the vicinity of the existing school. Construction is planned to be expedited through early site construction packages using a modified Design-Build project delivery method starting late 2012 for building occupancy in the fall of 2014, followed by site work completion.

The building is designed in 3 stories with entries and egress located on each level relative to the slope of the existing site. The building is organized into 3 wings arranged around a central courtyard. Two main entrance plazas at levels 2 and 3 serve the building and main parking lot along 4th Street SE. Upon entering the building, students and visitors move through a spacious, secure lobby to a light-filled double height Commons/Cafeteria with direct access to the athletic wing. The Media Center on level 3 is adjacent to the Commons/Cafeteria. The Commons/Cafeteria opens onto the courtyard. The Commons/Cafeteria, "Main Street" corridor and secure courtyard give clarity to the organization of the building and provide clear circulation to main classroom wing housing the Academies for each grade level, various student and community services and activity areas. The athletic wing, including gymnasium, pool, locker rooms and fitness areas on levels 2 and 3, overlooks the new football stadium with grandstand seating for 1,600 people, directly accessible from level 2 of the building. An outdoor stair and ramps lead from the entry plaza to the field level.

The classroom wing houses Academies for grades 9 through 12, the STAY Academy for older students and the Transition Academy (Arts & Technology) on all three levels. The wing parallel to 4th Street SE houses a 580-seat auditorium on all three levels, music and art programs. The auto program, service court and loading dock are

accessible from 4th Street on level one of this wing. Daycare facilities are also on level one of this wing, opening onto playground to the south. Sustainable design is a key feature of the project, targeted to LEED Gold certification or higher. Notable sustainable strategies include a geothermal water-source heat pump for heating and cooling, energy recovery units, exterior shading, high efficiency glazing, photovoltaic arrays, rainwater harvesting, and enhanced lighting controls. The existing school will be fully occupied throughout construction of the new school, for both educational and community uses, and upon completion and occupancy of the new facility the existing school will be fully demolished and new ball fields, parking, and potentially geotechnical well fields will be developed on that area of the site.

Project Data

- Existing Building Square Footage: 271,300

Modernized Building Square Footage: 356,000

Construction Type: New Construction

- Current Enrollment: 1,100

- Modernized Capacity: 1,400

The Mechanical system for the New Ballou School Project is a simple (4) pipe heating and cooling system which provides conditioned air and water through Cooling Towers, Chillers, Gas Fire Boilers, Packaged Air Handling Units, Fan Coils Units, Unit Heaters and Split System AC units.

Heating - The heating system consists of Gas Fired Boilers, and base mounted hot water pumps that circulate hot water to the coils of the AHU's, DOAS's FCU's, UH's and the PDU.

Cooling - The cooling system consists of a Cooling Tower, Chillers base mounted condenser and chilled water pumps chilled water to the coils of the AHU's . DOAS's FCU's, UH's and the PDU. Split System AC units are located in specified areas.

Domestic Hot Water - Is achieved through two domestic water heaters with inbuilt recirculation pumps two water storage tanks located in Main Mechanical Room.

Pool Conditioning provided through Pool Dehumidification Unit with Pipe Heat Exchanger.

Scl	nedule	Start/Completion Date	Percent Complete %	
-	Preconstruction	7/1/11 / 5/30/13	75%	
-	Construction	1/23/13 / 4/1/15	2%	
-	Close out	4/2/15 / 6/30/15	0%	

Milestone Date				
-	Design Start	3/19/12		
-	Ground Breaking	3/26/13		
-	Building Permit	7/15/13		
_	Substantial Completion	8/15/14		

	Project Completion	6/30/15	
-	Ribbon Cutting	8/15/14	
Pr	oject Team	Firm	Program Manager
-	Program Manager	DCPEP	Marcos Miranda / Hakim Chambers
-	Architect	Bowie Gridley Architects /	Paul Lund / Curtis Clay
		Perkins + Will J/V	
	Contractor	Chiaramonte – Hess, A J/V	Frank Chiaramonte / Steve Groth

LEED/ Sustainable Design Initiatives: The project will seek a minimum of LEED Gold accreditation, but will strive to achieve a higher LEED rating.



OPEFM Ballou HS Cx

Owner's Project Requirements 3401 4th Street Southeast District of Columbia, DC, 20032

Presented by:

Department of General Services 2400 East Capitol Street, SE Washington, DC 20003

27 June 2014

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Introduction

The District of Columbia's Ballou High School is located at 3401 4th Street SE, Washington, DC. The school is comprised of three main functional spaces, the Academic Wing, the Arts Wing, and the Athletic Wing. The Academic Wing is shown on Construction Documents as Areas A & B. It is comprised of the Classrooms and Science Labs for everyday use as well as the main mechanical room. The Arts Wing is shown as Areas E, F, & G on the Construction Documents. The Automotive Technology Lab is also included; however the Automotive Spray Paint Booth is not included in the commissioning scope. This Wing includes the large common use space such as the Cafeteria, Auditorium, Kitchen/Servery, Media Center, Band and Choir rooms, as well as the Community Offices. The Athletic Wing houses the Pool, Gymnasiums (including the indoor running track), Fitness Center, Locker Rooms, Medical Facilities, and Administrative Offices. The Athletic Wing is titled Areas C & D on the Construction Documents.

The new Ballou High School project is being constructed to replace the existing Ballou HS facility in order to meet the needs of District of Columbia Department of General Services (DGS).

Key Owner's Project Requirements (OPR)

Several key project requirements have been identified that are absolutely critical to the success of this project. These OPR are general in nature and essentially encompass the performance criteria and detailed requirements contained throughout this document.

For base building HVAC and Lighting Control systems in this project, the key OPR are:

- 1) Project documentation requirements in order to properly install, start-up, operate, troubleshoot, and maintain the HVAC and Controls systems for the life of the facility, accurate and accessible documentation is required. The Owner requires documentation to be electronic and tailored to the specific components installed. For these systems, the timing of completion of key documentation is essential:
 - Commissioning Plan
 - Installation Verification (Construction Checklists)
 - Equipment product data cut sheets
 - Functional Testing Procedures
 - Historical tracking project Issues Log including issues and resolutions
 - Training Material
 - O&M Manuals
 - Final Systems Manual
- 2) Appropriate heating and cooling The installed HVAC system must provide consistent and appropriately controllable temperature, humidity, and airflow during all occupied periods.
- 3) Sustainability The building systems must be maintainable by contracted maintenance personnel, with easy and non-disruptive access to components and systems for routine maintenance. Building Automated Systems are preferred over localized controls at individual units.

General Project Description

The new Ballou High School project has been undertaken to meet the following:

- 1) LEED Certification The Project is to attain LEED Gold under the requirements for LEED for Schools 2009. The Commissioning effort will include:
- Air Handling Units (AHU)



- Make-up Air Units (MAUs)
- Dedicated Outside Air Systems (DOAS)
- Chiller
- Mechanical Pumps
- Cooling Towers
- Boilers
- Variable Air Volume Terminal Units (VAV)
- Fan Coil Units (FCU)
- Supplemental AC Units
- Unit Heaters
- Exhaust Fans
- Domestic Hot Water System
- Lighting Controls
- Pool Dehumidification Units (PDUs)
- 2) System accessibility and maintainability The design and construction of the building must be energy efficient to operate and maintain. The new building systems must be easily maintainable by staff maintenance personnel, with sufficient access to systems for routine maintenance.
- 3) Heating and cooling The heating, ventilating, and air conditioning system will provide the appropriate thermal comfort for its occupants while maintaining an environmentally sound and energy efficient status. The system must provide consistent and individually controllable temperature and airflow.
- 4) Allowable tolerance in facility system operations the tolerance that will be allowed in the operation of the HVAC systems is:
 - Temperature in the space shall not vary more than +/- 3°F from head to foot and from space to space.
 - System airflow shall not vary more than +/-10% from design values.
- 5) Project is scheduled for full occupancy by 29 December 2014

Facility Objectives

The requirements for the Occupied Spaces of Ballou High School are listed below. All temperature and humidity setpoints were taken from the Design Drawings, which supersedes the Design Narrative, unless otherwise noted.

Academic Wing

- 1) Classrooms and Laboratories Adequate space to facilitate the learning purposes of the room.
 - Occupied Cooling Setpoint: 75°F DB / 50% RH
 - Occupied Heating Setpoint: 70°F DB
 - Unoccupied Cooling Setpoint: 85°F DB/ 60% RH
 - Unoccupied Heating Setpoint: 60°F DB
 - Maximum CO₂ Concentration: 600ppm

Heating and cooling shall be provided to each classroom primarily through a fan coil unit connected to the chilled and hot water loops. Ventilation will be provided to the classroom by constant volume Dedicated Outside Air System (DOAS). The CO₂ concentrations in the classroom shall be maintained below 600ppm. Laboratories shall be provided will fume hoods that are ducted to roof-mounted exhaust fans, where necessary.



Arts Wing

- Administrative Offices
 - Occupied Cooling Setpoint: 75°F DB / 50% RH
 - Occupied Heating Setpoint: 70°F DB
 - Unoccupied Cooling Setpoint: 85°F DB / 60% RH
 - Unoccupied Heating Setpoint: 60°F DB

Offices shall be served by a dedicated AHU with variable air volume terminal boxes in order to provide multiple zones for optimal thermal comfort.

- Kitchen and Cafeteria –Adequate space for food preparation and serving with a common area for large group meals.
 - Occupied Cooling Setpoint: 75°F DB / 50% RH
 - Occupied Heating Setpoint: 70°F DB
 - Unoccupied Cooling Setpoint: 85°F DB / 60% RH
 - Unoccupied Heating Setpoint: 60°F DB

The kitchen and cafeteria will be conditioned by a dedicated Air Handling Unit (AHU). The kitchen stove shall be provided with an overhead exhaust hood and tempered make-up air will be provided to the space by a roof-mounted Make-Up Air unit (MAU).

- Auditorium Adequate space for gathering and pre-function reception.
 - Occupied Cooling Setpoint: 75°F DB / 50% RH
 - Occupied Heating Setpoint: 70°F DB
 - Unoccupied Cooling Setpoint: 85°F DB / 60% RH
 - Unoccupied Heating Setpoint: 60°F DB

The Auditorium wills the conditioned by a dedicated Air Handling Unit.

- Band Rooms Area containing space for Ballou's band to practice and house their instruments.
 - Occupied Cooling Setpoint: 70°F
 - Occupied Heating Setpoint: 65°F
 - Unoccupied Cooling Setpoint: 85°F
 - Unoccupied Heating Setpoint: 55°F
- Media Center Area containing classrooms and a library dedicated to promote art awareness and education.
 - Occupied Cooling Setpoint: 70°F
 - Occupied Heating Setpoint: 65°F
 - Unoccupied Cooling Setpoint: 85°F
 - Unoccupied Heating Setpoint: 55°F

Athletic Wing

- 1) Natatorium Area containing a swimming pool and equipment to regulate water temperature, chlorine and thermal comfort.
 - Occupied Cooling/Heating Setpoint: 84°F DB / 60% RH

Air conditioning will be provided by a dedicated air handler capable of cooling, heating, and dehumidification.

- 2) Gymnasium Large multi-purpose area most commonly utilized for physical activities.
 - Occupied Cooling Setpoint: 75°F DB / 50% RH
 - Occupied Heating Setpoint: 70°F DB
 - Unoccupied Cooling Setpoint: 85°F DB / 60% RH



Unoccupied Heating Setpoint: 60°F DB

A dedicated air handling unit will provide the gym with up to 100% outside air to provide necessary ventilation.

- Weight Rooms and Locker Rooms Athletic locker rooms and weight rooms with adequate space for exercise activities.
 - Occupied Cooling Setpoint: 75°F DB / 50% RH
 - Occupied Heating Setpoint: 70°F DB
 - Unoccupied Cooling Setpoint: 85°F DB / 60% RH
 - Unoccupied Heating Setpoint: 60°F DB

Cooling and heating will be provided by a roof-mounted DOAS unit dedicated to these spaces.

- 4) Administrative Offices -
 - Occupied Cooling Setpoint: 75°F DB / 50% RH
 - Occupied Heating Setpoint: 70°F DB
 - Unoccupied Cooling Setpoint: 85°F DB / 60% RH
 - Unoccupied Heating Setpoint: 60°F DB

Offices shall be served by a dedicated AHU with variable air volume terminal boxes in order to provide multiple zones for optimal thermal comfort.

General Areas

In addition to the functional areas defined above, the building as a whole requires a variety of support areas to allow each group to operate efficiently. These support areas include:

- 5) Corridors Corridors on each floor provide efficient movement throughout the building and between the building user areas. The corridors should be designed to prevent blind corners and collisions. Corridors will be conditioned using the fan coil units serving adjacent spaces.
- 6) Stairways and Elevators The stairways and elevators provide efficient movement between the floors in the building. These features should be conveniently located for building egress and accessibility requirements. Heating will be provided to stairwell from wall-mounted hot water heaters.
 - Heating Setpoint: 70°F DB
- 7) Public Restrooms Public restrooms are needed for use by any building occupant or visitor. The restrooms must be conveniently located, clearly marked, and accessible. Adequate exhaust must be provided to meet the governing code requirements.
- 8) Custodial space Closets or other designated custodial areas are needed on each floor to allow the janitorial staff to efficiently perform their duties without interruptions or inconveniences to other building staff.
- 9) Mechanical and Electrical Rooms Space must be designated within the building to allow for installation of mechanical, electrical and telecommunications equipment and devices. This space should be optimally located to allow for the simplest and most efficient engineered system design.
- 10) Telecom Rooms Due to the heat load of these rooms, a dedicated split system air conditioner will be provided to maintain each rooms cooling requirements.
 - Cooling Setpoint: 72°F DB / 45% RH
- 11) Parking Adequate parking for employees that is safe and accessible during normal operating hours and after-hours activities. Exhaust fans will be provided to exhaust carbon monoxide and other harmful gases from the garage.



The building is regularly occupied from 7 a.m. to 10 p.m., Monday through Friday, with school hours of 8 a.m. to 5 p.m. The facility is closed for all Federal holidays, and regular school breaks. The peak occupancy requirements for Ballou High School are:

- 206 faculty members
- 1400 Students

The occupancy schedule to be used to setup the control system is detailed in Tables 2a, 2b and 2c.

Table 2a: Occupancy Schedule - Academic Wing

Day of Week	State	Morning Warm-up	Occupied	Unoccupied	Special Event
School Year	On	5:00 a.m.	7:00 a.m.	10:00 p.m.	N/A
Weekdays	Off	7:00 a.m.	10:00 p.m.	5:00 a.m.	N/A
School Year Weekends	On	8:00 a.m.	8:00 a.m.	6:00 p.m.	N/A
	Off	8:00 a.m.	6:00 p.m.	8:00 a.m.	N/A
Summer Break	On	8:00 a.m.	8:00 a.m.	6:00 p.m.	N/A
	Off	8:00 a.m.	6:00 p.m.	8:00 a.m.	N/A
Minton Burnle	On	8:00 a.m.	8:00 a.m.	6:00 p.m.	N/A
Winter Break	Off	8:00 a.m.	6:00 p.m.	8:00 a.m.	N/A

Table 2b: Occupancy Schedule - Arts Wing

Day of Week	State	Morning Warm-up	Occupied	Unoccupied	Special Event
School Year	On	5:00 a.m.	6:00 a.m.	11:00 p.m.	10:00 p.m.
Weekdays	Off	6:00 a.m.	11:00 p.m.	5:00 a.m.	11:00 p.m.
School Year Weekends	On	8:00 a.m.	8:00 a.m.	6:00 p.m.	N/A
	Off	8:00 a.m.	6:00 p.m.	8:00 a.m.	N/A
Summer Break	On	8:00 a.m.	8:00 a.m.	6:00 p.m.	N/A
	Off	8:00 a.m.	6:00 p.m.	8:00 a.m.	N/A
Minter Breek	On	8:00 a.m.	8:00 a.m.	6:00 p.m.	N/A
Winter Break	Off	8:00 a.m.	6:00 p.m.	8:00 a.m.	N/A

Table 2c: Occupancy Schedule - Athletic Wing

Day of Week	State	Morning Warm-up	Occupied	Unoccupied	Special Event
School Year	On	5:00 a.m.	6:00 a.m.	11:00 p.m.	6:00 p.m.
Weekdays	Off	6:00 a.m.	11:00 p.m.	5:00 a.m.	11:00 p.m.
School Year	On	8:00 a.m.	8:00 a.m.	10:00 p.m.	8:00 a.m.



Weekends	Off	8:00 a.m.	6:00 p.m.	8:00 a.m.	10:00 p.m.
Cumana an Duanda	On	8:00 a.m.	8:00 a.m.	10:00 p.m.	8:00 a.m.
Summer Break	Off	8:00 a.m.	8:00 p.m.	8:00 a.m.	10:00 p.m.
Minter Dreek	On	8:00 a.m.	8:00 a.m.	10:00 p.m.	8:00 a.m.
Winter Break	Off	8:00 a.m.	6:00 p.m.	8:00 a.m.	10:00 p.m.

The occupants of the space require excellent indoor environmental quality to facilitate occupants' productivity by providing a comfortable environment. The primary occupant requirements are:

- 1) Temperature consistent temperature within the space and from space to space.
- 2) Humidity consistent humidity levels in the space that avoids a "sticky" feeling.
- 3) Noise avoid distraction of noise from adjacent classrooms/laboratories and from equipment in or above/below the space.
- 4) Air Quality no odors air shall have a "fresh" feeling.
- 5) No drafts consistent airflow throughout the space with no "drafts" or "dead spots".
- 6) Interface with the operation and maintenance personnel it is expected that the occupant will interface with the operation and maintenance staff through a telephone work order system, with operations and maintenance staff present during normal operating hours.
- 7) Lighting Interior lighting shall meet an illumination goal of an average of 50 foot candles at 36 inches throughout the occupied spaces.

Health, hygiene, and indoor environment – the following are the known activities that generate pollutants in/near the facility that impact the HVAC system:

- 1) Poor circulation build-up of pollutants due to a lack of air circulation.
- 2) Inappropriate use and maintenance of materials materials emit pollutants or the maintenance of the materials has excessive pollutants.
- 3) Dumpster the trash within the dumpster.
- 4) Dirty ventilation system build-up of dust and dirt within the ventilation system (outdoor air intake).
- 5) Cooking odors, particulates, and smoke from cooking.
- 6) Pests pests from outdoors.
- 7) Smoking byproducts of smoking (butts and smoke).
- 8) Noise noise from adjacent spaces and outdoors.
- 9) Cleaning chemicals and materials utilized during cleaning.
- 10) Lavatories bathroom byproducts.
- 11) Mildewed ceiling tiles growth from water build-up on materials.
- 12) Dirty filters allowing dust and dirt to bypass filtration.
- 13) Computers heat, noise and chemicals.
- 14) Copiers/printers heat, noise and chemicals.
- 15) Locker Rooms bacteria growth.

These odorous elements should be factored into the consideration and design of the building layout and mechanical airside systems.

Performance Criteria

The performance criteria upon which this project is being evaluated by the Commissioning Team are included in this section. Performance criterion is verified during the Pre-Design, Design, Construction,



and/or Occupancy & Operations phase(s) of the project.

- 1) Quality requirements of materials and construction the level of quality of the HVAC materials is defined by:
 - a) Durability high durability with resistance to damage by ambient conditions, users or operation and maintenance personnel.
 - b) Time expectancy between failures no equipment failures during the first five years of operation.
 - c) Time expectancy between replacements 25 years.
 - d) Owner general expectations of quality of construction LEED Gold.
- 2) Acoustical requirements no noise generated from the HVAC or electrical system that results in distraction of the occupants, including central systems, ductwork, unitary units, and room air distribution.
- 3) Vibration vibration from the HVAC components shall not be transmitted where it is felt by the occupants.
- 4) Seismic the facility is not located in a seismic zone there are no special concerns relative to the HVAC systems.
- 5) Accessibility the accessibility issues for the Owner include:
 - a) Occupants system overrides shall be integrated with the zone temperature sensor and allow for after-hour system operation in 30 minute increments.
- 6) Communications there shall be one communication system (backbone) throughout the entire facility, which the HVAC control system will use between its components.
- 7) Sustainability a LEED Gold certification level is desired for this project. In pursuit of this certification, the following sustainability items are to be the focus:
 - a) Use of low energy system components utilize high efficient components for installed and occupant items.
 - b) Build specific to the site integrate site conditions to building layout and systems.
 - c) Accomplish research of real needs of project
 - d) Minimize adverse impact on the environment utilize benchmarks for impact on the environment.
 - e) Create real incentive have real incentives for designers, contractors, and occupants for achieving a sustainable facility.
 - f) Use fixtures and equipment with water and energy conservation low water and energy fixtures.
 - g) Use of renewable resources (solar) generation on-site through renewable resources.
 - h) Daylight and energy efficient lighting systems flexibility in lighting system and maximize use of daylight. Occupancy sensor controls shall be used in at least 75% of the spaces to reduce lighting load when not required.
 - i) Ensure design of building minimizes energy loss building envelope has very good thermal properties.
 - j) Incorporate energy control measures (ECM's) develop and accomplish analysis to integrate energy saving measures as part of design process.
 - k) Reuse materials reuse materials when possible.
 - Produce less waste minimize waste from construction and manufacturing.
 - m) Create awareness of stakeholders educate team members of sustainable features.
 - n) Use less toxic materials do not use any toxic substances in the facility.
 - o) Improve indoor air quality improve indoor air quality to result in improved worker productivity.



- p) Install automatic controls on mechanical systems use of good controls.
- q) Conserve resources and energy minimize materials required and the energy used to create materials.

8) Energy efficiency

- a) Meeting ASHRAE Standard 62.1 building performs per requirements in ASHRAE Standard 62.1 or better.
- b) BTU/sq.ft./year the energy use for heating, cooling, and plug loads per year on a unit area basis.
- c) Number of energy savings ideas submitted the number of energy savings ideas that are generated by the building occupants indicating an on-going understanding and focus on energy efficiency.
- d) Avoid system degradation avoid degradation of systems that leads to reduced energy efficiency.
- e) # hot/cold calls per year track the number of annual comfort complaints to verify that non- energy criteria are not compromised by focusing solely on energy efficiency.
- f) Actual compared to budget compare the actual to the budget to verify assumptions and identify opportunities to improve.

OPEFM Ballou HS Cx 27 June 2014



1012006 Ballou Senior High School

		Hess Project No: 1012006		
		Date: 9/24/2013		
ARCHITECT:		CONTRACTOR:		
Bowie Gridley Ar		HESS		
1010 Wisconsin	Avenue, NW	804 West Diamond Avenue		
Suite 400 Washington, DC	20007	Suite 300		
	88 Fax: (202) 337-2626	Gaithersburg, MD 20878 Tel: (301) 670-9000 Fax: (301) 670-9009		
Paul R. Lund		Tel. (301) 670-3000 Fax. (301) 670-3009		
SUBCONTRACTO	R:	SUPPLIER:		
MANUFACTURER	(S):			
		No Supervisor Takes		
		Cubmit Charlifold Ham		
		Other:		
	e specification requirements have been met	STAMP:		
and all almensions, col and/or corrected on th	nditions and quantities are verified as shown ese drawinas.	This review is only for general conformance with the design concept and the information given in the Construction Documents. Corrections or		
,		the Contractor from compliance with the requirements of the plans and		
	Hess Construction + Engineering Services	specifications. Review of a specific item shall not include review of an assembly of which the item is a component. The Contractor is		
		information that pertains solely to the fabrication processes or to the		
Signed:		means, methods, techniques, sequences and procedures of construction; coordination of the Work with that of all other trades and performing all Work in a safe and satisfactory manner.		
	Hess Representative	Bowie Gridley Architects, P.L.L.C.		
Date:	9/24/2013			
	Deview No.	10 15 2012 Dod Schare		
ubmittal No. :	14 21 00-002 Review No.: 001	Date: 10-15-2013 By:		
Spec Section:	14 21 00			
Orawing No.:				
escription:	Elect Traction Elevator SD	NO EXCEPTION TAKEN MAKE CORRECTIONS NOTED		
	Electric Traction Elevator Shop Drawings	REJECTED REVISE AND RESUBMIT		
Remarks:		SUBMIT SPECIFIED ITEM SEE ATTACHED LETTER		
		REVIEWED FOR INFORMATION ONLY		
		CHECKING IS ONLY FOR GENERAL CONFORMANCE WITH THE DE CONCEPT OF THE PROJECT AND GENERAL COMPLIANCE WITH THE INFORMATION GIVEN IN THE CONTRACT DOCUMENTS. ANY ACTION OF THE CONTRACT DOCUMENTS.		

CHECKING IS ONLY FOR GENERAL CONFORMANCE WITH THE DESIGN CONCEPT OF THE PROJECT AND GENERAL COMPLIANCE WITH THE INFORMATION GIVEN IN THE CONTRACT DOCUMENTS. ANY ACTION SHOWN IS SUBJECT TO THE REQUIREMENTS OF THE PLANS AND SPECIFICATIONS. CONTRACTOR IS RESPONSIBLE FOR DIMENSIONS, WHICH SHALL BE CONFIRMED AND CORRELATED AT THE JOB SITE. FABRICATION PROCESSES AND TECHNIQUES OF CONSTRUCTION; COORDINATION OF HIS WORK WITH THAT OF ALL OTHER TRADES AND THE SATISFACTORY PERFORMANCE OF HIS WORK.

SK&AStructural Engineers, PLLC

DATE: 10/08/2013

BY: DAVIDP

Hoistway dimensions for elevator #2 do not match basis of design. Contractor to coordinate edge of slab with structural.

Jamie Krissoff

A		NO EXCEPTIONS
В	×	EXCEPTIONS AS NOTED
C		REVISE AND RESUBMIT
D		REJECTED
Ε		FOR INFORMATION ONLY
F		NOT REVIEWED

SUBMITTAL REVIEW

See Submittal Transmittal for important qualifications and limitations.

Project No. 860312.000

PERKINS +WILL

By: Jamie Krisso Date: 10/14/2013

1250 24th Street NW t 202.737.1020 Suite 800 f 202.223.1570 Washington, DC 20037 perkinswill.com

PERKINS+WILL

Submittal Review Comments

To:	Stephen White	Date:	October 14, 2013
From:	Jamie Krissoff	Project Name:	Ballou HS
Subject:	Submittal Review	Project Number:	860312.000
Section:	14 21 00-002-0	Action:	Exceptions as Noted

Submittal Review Comments provide information for use by the Contractor. Work Shall be completed in accordance with the Contract Requirements. This review is for the conformance with the information given and the design concept expressed in the contract documents. The contractor shall retain responsibility for: compliance with the contract documents, confirming and correlating quantities and dimensions, selection of fabrication processes and techniques of construction, coordination of this work with other trades, performing work in a safe and satisfactory manner, compliance with the construction schedule, and all other provisions of the agreements. The following notations shall not be construed as an authorization for additional work or additional costs.

AMERICAS I ASIA I EUROPE I MIDDLE EAST I AFRICA

Mechanical ◆ Electrical ◆ Plumbing ◆ Fire Protection ◆ Energy ◆ Sustainable Design Project Management ◆ Construction Management ◆ Consultant Design Engineers

SUBMITTAL PROCESSING FORM

SUBMITTAL REVIEW COMMENTS:

Corrections or comments made of the shop drawings during this review do not relieve contractor from compliance with the requirements of the drawings and specifications. This check is only for review of general compliance with the design concept of the project and general compliance with the information given in the Contract Documents. The contractor is responsible for confirming and correlating all quantities and dimensions; selecting fabrication process and techniques of construction; coordinating his work with that of all other trades and performing his work in a safe and satisfactory manner. Contractor shall provide coordinated submittals for each type of equipment, fixture, work, item, or process. Coordinated submittals shall be complete, separate from non-associated submittals, and with individual submittal numbers.

Review is categorized as: Approved, Rejected, Revise and Resubmit, Submit Specified Item, and Furnish as Noted. Where the submittal is marked "Rejected", do not proceed with the work covered by the submittal. Prepare a complete new submittal for a product that complies with the Contract Documents.

the Contract Documents.	
PROJECT NAME: Ballou High School Modernization	PROJECT NO: SAIP12353.00
SUBMITTAL NAME: Electric Traction Elevator SD	SUBMITTAL NO: 142100-002-0
SPECIFICATION SECTION: 142100	REVIEWER: Erwin Mate
ACTION: No Action Taken	DATE: 10/14/2013
The information requested on this submittal fal Please address as necessary. No additional coreview.	
Please call Setty & Associates International, PLLC, at 2	202-393-1523 if you have any questions.
COPIES TO: File	By: Amanda Maillette, CA Coordinator



Transmittal Form

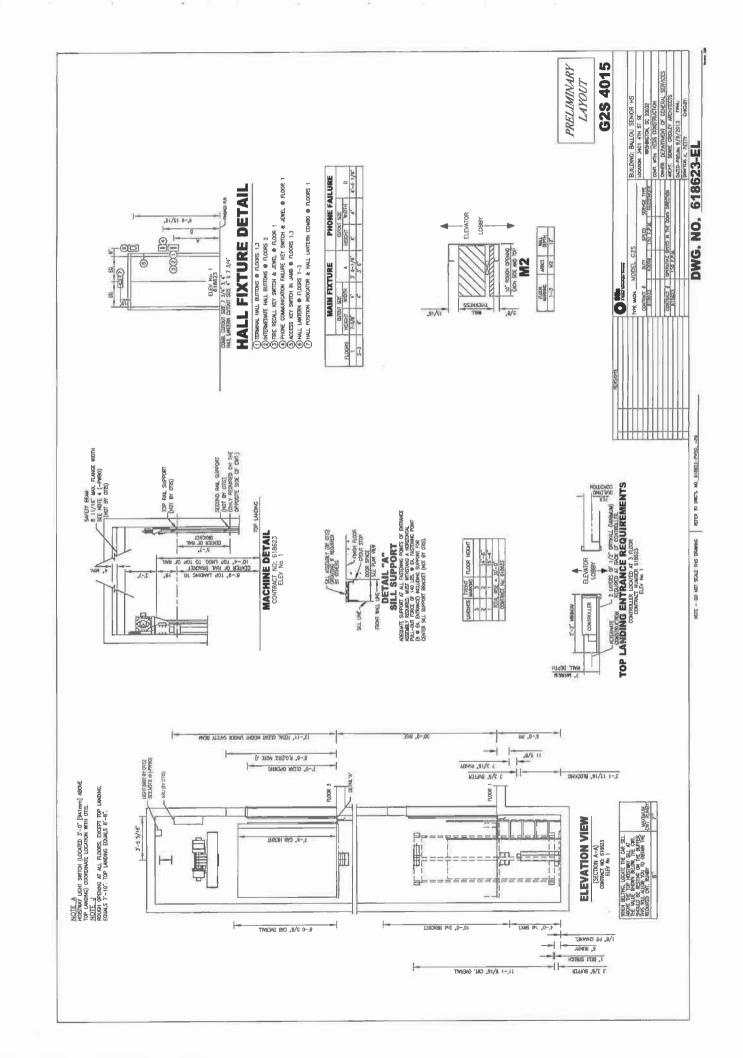
9/17/2013

To:	Hess Construction		From:	Martin S. Shatzer
Address:	804 W Diamond Ave			Otis Elevator Company
	Gaithersburg, MD 20878			5000-H Philadelphia Way
Attn:	Robert Looper			Lanham, MD 20706
Job name:	Ballou Senior High School	ol	Contract:	618623-625
We enclose	e the following:	*		
Quantity	Document No.			Description
	618623	Elevator	#1 layout	shop drawings
	618624	Elevator	#2 layout	shop drawings
	618625	Elevator	#3 layout	shop drawings
	NN21251	Elevator	product da	ata approval package
		DC Elev	ator permit	requirements
lease return				the elevators for manufacturing. 3 so we may move forward in the
Remarks:		irected to	the highlig	hted sections of the Product Data
• Ple	_			d so we can apply for our elevator
Please feel	free to call me at the numb	er below	with any qu	estions.
				Very truly yours,
				Martin S. Shatzer Project Manager 301-324-4204

	Spec. Section	1.12.C.14		1,16.A	2.01	2.01.B.3	202	2.02.A.1	2.02.A.4	2.02.A.5	2.02.A.7.a.(1)	2.02.B.1	2.02.B.2	2.03	2.03.A	2.03.C		2.03.H	3	2014	2.04.A	2.04.D	2.04.E	2.04.F	2.05	2.05.B.4	2.05.B.7	2.05.B.14	2.05.B.18	2.05.C	2.05.G.1	2.05.63	2.05.G.4	2.05.H.1	2.05.H.2
Submitted	ltem	pH buffer feed system	UV unit	Record Drawings (As-Built)	Overflow System	Gutter Grating	Pumping Equipment	NSF Listing / TEFC Motor	Pump Strainer	Scotchkote 134	Competition Pool Recirculation Pump	Pressure Gauges	Compound Gauges	Filtration Equipment	NSF Listing	Filter Tanks	Air Relief Valve	Filter Media	Doginal dia niking	Recirculation Fittings	Main Urain Outlets	Wall Inlet Fittings	Floor Inlets	Anti-Vortex Plates	Piping Systems	Pool Piping - Sch 80	Heat Piping - CPVC	Waterstops	Concentric Reducers	Pipe Hangers & Supports	Butterfly Valves	Check Valves	Modulating Float Valves	Pipe Identification	Valve Identification
	Date Received					5/15/14		5/15/14	5/15/14	5/15/14	5/15/14	5/15/14	5/15/14		5/15/14	5/15/14	5/15/14	5/15/14			5/15/14	5/15/14	5/15/14	5/15/14		5/15/14	5/15/14	5/15/14	5/15/14	5/15/14	5/15/14	5/15/14	5/15/14		5/15/14
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iew	Revise & Resubmit																			T	T	1								Г	T	Ī	Ì		
Comments						Architect to select color					Provide premium efficiency motor, and coordinate 25 hp pump size with electircal contractor.																					Drovide anow coating on interior of chack values			

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Loose Equipment		Diving Board	1 Meter Diving Stand	Surge Tank Ladder Rungs	Surge Tank Access Hatch	Lifeguard Chairs	Starting Platforms	Stanchion Posts	Step Rails	Grab Rails	Deck Equipment		Diving Board Anchor	Single Post Starting Block Anchors	Cup Anchors	Stanchion and WP Anchors	Grab Rails and Railing Anchors	Inserts and Anchor Sockets		Make-Up Water Solenoid Valve	High Water Solenoid Valve	Water Level Controller - Gutters	Water Level Controllers		Backwash Flow Meters	Return Line Flow Meters	Flow Meters		Water Chemistry Controller	Chemical Controller		Ultraviolet System	Acid Feed Pumps	Vent	Low Profile Ramp	Modular Spill Platform	Calcium Hypochlorite System	Chemical Treatment Systems	Item
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								Stanchion to be .145 thickness, 316 SS	Step rails shall be 316 SS	Grab rails shall be 1.5" diameter, .120" thick, 316 SS											The solenoid submitted for a make-up water solenoid is not of adequate size to work as the high water solenoid											Contractor to confirm voltages available on site prior to ordering. Electrical to review and approve power requirements. Provide warranty letter for 0.3 ppm combined chlorine performance from UV manufacturer.							





2'-6" INSERT

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IN R. HOLDINY & HE

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Y.A.

4'-7 9/16"

4 5/8"

,91/0

(3)

1,-5 2/8"

1-5 13/16

3'-0 3/16"

2 9/10, DOOR SHIEL

\$1/4

PLAN VIEW

8'-4 6/16' BRAT. TO BRAT. 9"-4" CLEAR HOISTHINY & PIT

101 3 1/2"

7-9 5/48" D.B.G.

2-3 13/16

V

	RAIL	RAIL STACK		
Ì	DESCRIPTION	PART NUMBER	LENGTH	_ &
	TOP CUT STAIL	AAAA500G998	14 141	_
3	FULL RALLS	AAA4300C1	.091	
	SOTTOM CUT PARL	AAA4500C12	15-0	Ш
	TOPS CLIT RALL	AAAASOOF3938	13,1	L
EX	TIFT RATS	AAAA SODET	15-0	L
	SOTTOM CUT RAIL	AMM 500612	.091	L

POWER 48TN: 3 PHASE W. 60 NR. LIGHT 120V.
DMEDISCHAL DAZA GN LAYDIST COMPLES WITH A17.1/CSA-B49-OR
AND/OR DC CODE. SESMIC ZONE = ZONEO

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PIT PLAN VIEW

(FORCES SHOWN ARE DOUBLED FOR IMPACT)
(RAIL FORCES AND BUFFER FORCES DO NOT OCCUR SIMULTANEOUSLY)

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			The MOH	MODEL G25			BUMDING, BALLOW SENIOR HS
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DWG. NO. 618623-PN							
	4FQ, -44			DWG.	9	6186	523-PN

G2S 4015

PRELIMINARY

LAYOUT

REFER TO DWG'S, NO. ILLEGES-PERFO DO NOT STALE THIS ERAMBLE

The following items must be performed or provided of the cost, to Ode Shedato Conprov, ("Clip.") by the Denes or General Controdror or their operation considered with governing codes. The price and installation extribute Of Ode is a bosed on provide that their may apposite in the last by ill result in controllowing the installation of the devotor expiration. That to provide that their may apposite in that between their in controllowing performed by Ode Shedato Depoint or the scope of our controllor custing installation above. A charge order will be submitted by Ode for materials and/or labor expended. All work must be performed per the applicable notional and or local codes.

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4. Deroade and interest and an artist profit of entrance doors and frames, if required, 4. Deroade and interest and artist artist and artist ar

If your joints witings = 6000k0 three phase or 2400k0 single phase, and your controller is to be located in the article will un additional theorem needs to be provided and installed. It is to be located per the 00s looput & sized the value or the softly before.

S. Provide o clear plumb healthrog with variedons from the sate shown on the Ote logout not to secreed -uff/+1" (Shimm) and not lot shown the Step should be clear differences shown on the Ote logouth properties of the should be clear differences shown on the Ote logouth of the should be shown that the step should be not leaded as the should be shown that the shown that the step should be shown that the shown the shown that the shown that the shown the shown that the shown the shown that the shown that the shown that the shown the shown that the shown that the shown the shown that the shown the shown that the shown the shown in coordinar with the shown that the shown that the shown in coordinar with the shown that the shown that the shown that the shown that the shown is the shown that the shown that the shown in coordinar with the shown that the shown that the shown in coordinar with the shown that the shown that the shown is coordinar with the shown that the shown in coordinar with the shown that the shown is coordinar with the shown that the shown in coordinar with the shown in coordinar with the shown in social shown in coordinar with the shown in coordinar with the shown in coordinar with the shown in social shown in coordinar with the shown in coordi

If werden that steer is utilized as roll support on our roll side, apposite ont, (2) werded tubes spooded of 20.4*

(Shemin) on centre on vergender for corr for locations with "A forension >> 25.70* (Memin) or state of state of the state o

9.A) Protection from Falls:
As required by the Coopering of each floor. Benicades shall be 42" (1057mm) high, with mid-real and lick bond, and withstand 500 lbs. (9.1.4) of vertical and lick bond, and withstand 500 lbs. (9.1.4) of vertical ond horizontal pressure.

B) Protection from Eding Objects.
As required by the Coopering Steep of which Administration (IOSHA) 1926.502(j) horizheng protection from falling debries and other bases materials by either:

1.)Full enhances acreening/meah in front of all devotor entrances
2.)Secure/controlled occass to all elevator lobbes (tock and large) with posted Notice "only elevator personnel
beyond this approximation.

Hens A) and B.) can be integrated systems. Hostwoy barricades and removed by others

10. Protect on pit floor designed to studial vestigated forces (case or safety fundors) and condustreesph from and impost bedeat not can constructed by taking the safety of efects. The pit must be dry out deten. The eventure of must be and out of safety of efets. The pit must be dry out deten. The coordinated with Otte to condition the safety of safety between the construction of water. Lookship to be conducted with Otte to condition the safety of safety between the construction of safety of safety between the conducted with Otte to conduct the safety of safety between the safety of safety

The rough openings, per sizes shown on the Citis logout, are required. Prior to the completion and tumover of the selectricity, oil extrance walls must be installed and rough openings filled in complete to maintain fire rated indeteror requirements.

12. Provide and install 0 fixed evitical iron lodder in each pit as required by governing code and located per Obis or as coordinated with Otis personnel. Lodder width and pit wall pocket requirements are shown in the pit plan on the Vibe logory.

13, install permanent light faltare in each elevator pit with literancular of not less than 100 in (10 fc) as measured the pilot. The light isolity has the systeminity guarde to prevent contact and cocidental breakage. The light which has the bas related as to be excessible from the pit before.

14. Octas used in hocktory construction must block 98% or more of incident full-spectrum ultraviolet radiation for the full height of the hocktory.

15. If an emergency door in a blad holdery is required, provide an outerful aminging uingle section type door with closer and a self closely barrier per VSIE A13,1-2007, section 211.1.2. Denizet your local Uts personnel for a closer door download by Audio 2007, 2019 seventy Olis specific requirements.

ARL Machine Space Prep/Work

Qontrol Room/Space and Machine Space Prep/Work

19 Provide a suitable control room/space(4) with access and veribidish in occordance with all applicable codes and
regulations. The control room/space(4) with a cess and veribidish in occordance with all applicable codes and
regulations. The control room/space(4) stall be maintained at a through their center of third center of their
Les Drecettes in the notation yet use can appoint.

24. Provide holdergow with sepaged and constituted in occordance with the required fire robing (including those pioces where behavior hands been sepaged and constituted in occordance with the required with a holdergow walls).

25. In the United Stotes provide amovine detectors, located on required, with wining from the sensing devices to the Afror each group of elevations, provide a normally closed contact representing the smole detector of the designated for the remaining fire amount of elevations, provide a normally closed contact representing all amobite detector in total designated in tobbies, including, or control converty spores but high the smole detector of the designated return limiting (see above) or the smoke detectors are destrobed bein to bibles.

1)If a smake detector is located in the hoistway at or below the lower of the two recall landings, it shall be wired to acknow the same normally closed contact as the same normally closed contact as the small before recall landings.

2)If the control room/spoce(s) are located at the designated return landing, the smake obsectors located therein shall be wived to octowize the same normally closed contact as the smake detector at the designated landing. Chequienter for intermittently illuminating the line hat visual signal in the our operating ponel, either 1) or 2) must be selected.

1)For a single unit, or group of elevators having control room/spoce(s) and one common hoistway, provide one additional normally closed contact representing the control room/space(s) and hoistway smoke detectors,

2)If the group controls more than one bostbory, and holdstory smale detectors are instilled, provide one normally closed control for special heritalists. The control recommendation of the control recommendation of the profession of the profession electron.

Site in Control provides amove detectors, located as required, with wing from the sensing devices to the controller(s) designated by Oils.

Afror each group of electrons, provide a commany closed control representing the sensing devices to the designated return indiviguous of electrons, provides a normally closed control representing the sensing detector at the designated reson, proup of electrons, provides a normally closed control representing all sensite detectors located in electron locates, and fight the smoke detector of the designated return locating (see above), and if provided, from the sensing device in the figh of the hostbody.

DJI the control space is located of the designated return landing, the smoke detectors located therein shall be wired to coffer the same normally obsect doubted can the smoke detector of the designated landing. For each group of denotions, profile in addition to the obove, a normally desect contact representing the estaing devices in the pil of at the top of the hosteney (for the Fire Hot in the Elevator) C.For each group of elevators, provide a normally closed contact representing the smoke detector in the elevator machine space.

2), in the whited Stills, if walkings are institute in the healings), or medicine specific), normal new control to discooled the mink is the peer assign), or medicine specific or means to controlled the mink of the original state in the selection of selection at least in superior for least profession by the prevent proper assign, the original state is the selection of selection at least in superior for the prediction of selection at least in superior for selection of selections and selection at least the selection of selection at least the selection of selection at least the selection of selection of selection at least the selection of selection of selection at least the selection at least the selection of selection and selection of selection and selection of selection of selection of selection and selection of selection and selection of selection and selection of
Servicted wing and couolid to the controller.

28 Provide on "Notice and couolid to the controller, and the control convenient to the top londing as all the control c

building. The disconnecting mean required by the National Destrictal Code or Connection Electrical Code (Rule 2015) shall be provided with all escendancial finding including the interaction of the provided with all escendancial finding including connections. Some all many countries, and when the connection of connections are included to clear a little final final and connection of connections are included to clear a little final final states flusts on Grazill pools of connections and the connection of exampling countries. The building power gritten states flusts on Grazill connection of the supplient on inner local and be copied in the substitution of the supplient grain and the connection of exampling non-inner local and be copied in the substitution of Provide States and the connection of the supplient principle of the supplient grain make its operate site interaction. As a supplient equal to the control countries are all the supplient grain make the connection of the supplient grain and the control countries. Such as the connection of the supplient grain and the supplient grain make the supplient grain make the supplient grain make the supplient grain supplient grain and supplient grain supplient grain supplient grain make the supplient grain supplient grain gr

33. All 125 volt, 15 or 20 amper single-place receptodes installed in pits, morbine spaces, control rooms/space(s) shall be of the gound-foult circuit-instructive type (GCD). A dedicated single-phase receptode supplying a permanenty installed foll sump pump shall not require GCD protection.

34. Proxice selectic power for lights local, reding, healing, else charing installation with sufficient power for starting, testing and objection. Provide a control of the selection. Provide a letter of space and control of the selection. Provide of the selection in the selection. Provide and the selection of the selection

35 Provide one (1) dedicated outside belightione line, per elevator, and terminated at the controller designated by the Oils construction superintendent. Reference the ATTL code and the Oils power of continuation letter for specific requirements.

So to orese used the parallelistic of ASE XIV-2004/CSA by a children the electric more is greater than of execution to 60 feet. [All matters, provide the ex-cry rade communications means that shall enoble enterestry personal reliable to bidding to entables communications to seed on the design of the entables or presented by the bidding to entables communications to seed on the design of the bidding and over entablished shall be terminated by entered the presented outside the our. Refer to ASME ATTI, 2004 CSA B44 or later, section 2272,13.14 for some requirements.

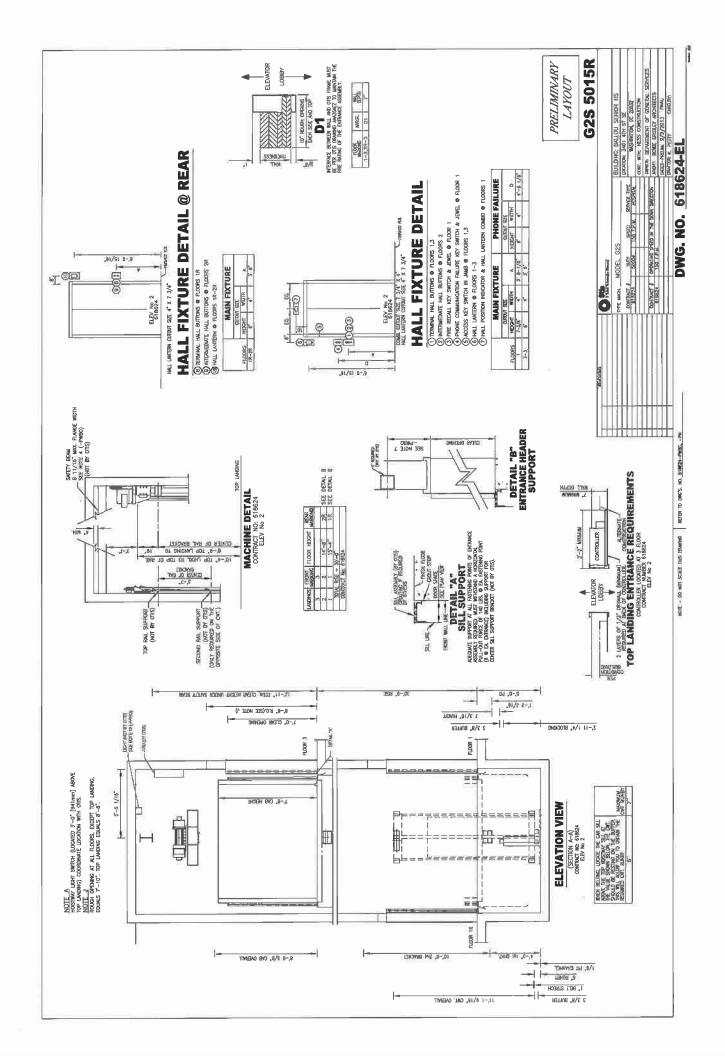
37. [Optional] For elevators having on into building intercom, provide a separate 120 volt, 15 ampere, single plase poers supply with trased S278 idsoorsest safety or circuit broader, located as required for inter-communicating system pages supply. Circuit II be broringed for feeling from the building emergency lighting supply if provided. Concluit and single for remailably located inter-communicating statione.

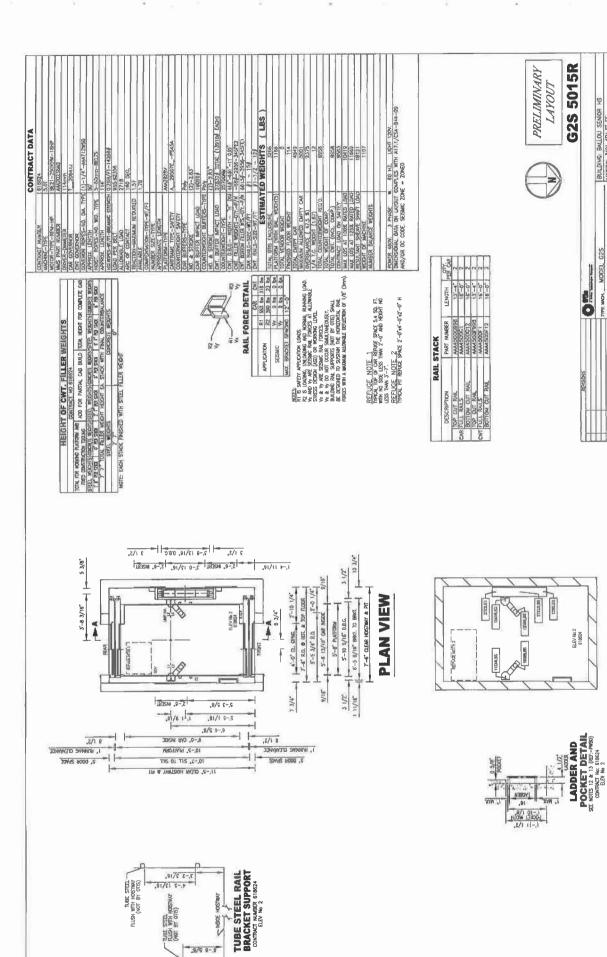
38. [Optional] for institutions however entergency (standow) power, provide the standowy power unit and makens to the selector of adsorptionary standows to the standows of adsorptionary standows to the standows of adsorptionary standows to the standows of adsorptionary standows to a standows the standows of the standows of adsorptionary standows of the standows Note: The building Emergency (Standby Power) Generator system used to operate the elevator(s) shall be capable supplying non-linear loads.

and save Oils harmless against any and all liability and costs arising out of your failure to prequirements.



DWG. NO. 618623-PWBO





8/9 9-0

NOTE - DO NOT SCALE THIS DRAWING

(FORCES SHOWN ARE DOUBLED FOR IMPACT)
(RAIL FORCES AND BUFFER FORCES DO NOT OCCUR SIMULTANEDUSLY)

PIT PLAN VIEW

REDTER TO DWC'S NO. 4138CN4-PATRO.

DWG. NO. 618624-PN

BULDING: BALLOU SENDR HS

LOCKING: JAN IN ST SE

LOCKING: BALLOU SENDR HS

LOCKING: BALLOU SENDR HS

LOCKING: BALLOU SENDR HS

BOR ERIDEY ARCHITECTS

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SONTHACT OUTY SPEED SERVER THE STATE OF THE STATE OF THE SPEED OF THE

MODEL G25

STREET | OPERATION SPEED IN THE COMP. BALCTION

The takewing lears must be performed or provided at so could to this Deceips Company ("Olica") by the Owner or Communication or their copial is revealed with dependent or the performed management of the instead of the instead or provide the installation subscience of the instead or provide the installation subscience. If shall be the control or performed from the school or superior explainmed. Follow to provide the iman specified in the last in entering the in relationship propriets by the school explainmed. Follow to consider a control or communication of the school or provided the school or control or or knowledge of the control or control or or knowledge or control or co

Regigned In-gray/Wind.

1. Provide cur-alla phrope care for elevation equipment on follows: day and enclosed, provides reli-able access to the elevation facilities with early expensive the elevation for the ground leave, lacedes which in 100 feet (CRSCham) of the feetbeds on of a linger than 25 x 20 feet (CRSCham) per elevation. Per elevation in per elevation in the elevation of the elevation o

Upiguary & Pit PrepD/Mors'

4. Provide and issued a steel, Lebem shoped safety beam with a maximum florge width of 8 11/16" (220mm), from safe and issued a steel, Lebem shoped safety copole of withstooding or minimum net ine load of 7500 to (4402 shope and to the top of the hosteroy, capoble of withstooding or minimum net line load of 7500 to (4402 shope eventually compared from top of beam to top of hosteroy, profession, 8 4" minimum dearence is required from top of beam to top of hosteroy, profession and prof

Provide a clear plumb hostway with veriolions from the size shown on the Otis layout not to exceed $-0^\circ/+1^\circ$ (25mm) and not less than the clear dimensions shown on the Otis layout

Grant of resistant and anniques against the consistant of powering each, from oil floor to top of hostings occupy with bear of resistant anniques against a process of the consistant of the con

9.4) Propriedition from Falls:
As propriedition from Falls:
As required by the Conceptional Safety and Headin-Strategies and the Part of The Conceptional Safety and Heading and Heading Safety and Heading Safety (1007mm) high, with mid-real and high between of each basinery perspection from Falling Objects.
B) Probediend from Falling Objects
B) Proprieding Conceptional Safety and Headin Amministration (IOSM) 1926.502(j) Insideway protection from falling objects maked by the Objects maked by the Conceptional Safety and Heading Amministration (IOSM) 1926.502(j) Insideway protection from falling objects maked by the Object maked by the Conceptional Safety and Heading Safety and Heading Safety S

removed by maintained and Notes: Items A.) and B.) can be integrated systems. Hostway barricades and surrenting shall be con:

10. Provide a pit force designed to mataloxi variefuel forces (feature bis safety invest) on our own doublewarph raise and elementar plan that have a flow distance or wanty parties to be presented to the present to the controlled with Other to one of all when the top of the design to the provided for the provided for the properties of the design of the provided for the provided

13, ledial permanent light feature in each elevator p_i with alumination of not less than 100 \pm (10 f.) as measured the first bulled) shall be extravely guarded to prevent contact and accidental breshage. The light bulled \pm and \pm are single which are the positive part of the pix bulled and the pix bulled \pm and \pm are the pix \pm are the pix \pm and \pm

is, class used in hosteray construction must block 98% or more of incident full-spectrum ultraviolet radiation for the full height of the hosteray. provide an outward swinging single section type door with section 2.11.1.2. Contact your local Dits personnel for a 15. If an emergency door in a blind hoistway is required, to choser and a self deauled borrier por ASME A17.1–2007, detailed drawing (AMZ8900D,FM) showing Citia specific NIRI Machine Space Prep/Work

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Its Maintain that compensation at the top of the noisienty (monthes spoon) between 227 F (for C) and 104 F (40° C). This spool all additions the zo-controlled with into the true policities. Referse, handles, and to the other process. Referse, handles, and to the other process. The spool are supplied, and to the controlled and the spool are supplied by the sense that the spool ones analysis (for the sense transferred to the spool are supplied by the sense transferred to the spool are supplied by the sense transferred to the spool are supplied by the spool are supplied to the spool are spool are supplied to the spool are spool are supplied to the spool are spool and the spool are spool and the spool and spool are spool are spool are spool and spool are

Control Recom/Spaces and Mechanics Spaces Proced weeklich in accordance with all opicicoble codes and regulation. By the Spaces of the spaces

21. Provide control noon/poce(s) with self-closing and self-closing doors with a group 2 locking device. In oddition, seems that oil in open anough the doors are soled (if elithready) weather applying, self-closing the properture of the top of the hordery (motive spool) between 32° F (0° C) and 10° F (45° C). Reddee laminfly shall not to reased 93° the conformation of the properture o

23. betal a permonent tight fature at the top of the hosteroy (mochine spood) of not lesso than 200-but (19 fc) as an anseared of the few of the standing author on the cor when the elevation is at the top landing. Light switch is to be located in the holderoy or the Offs legion.

Fire Proceeding. ProgNessy was designed and constructed in exceedance with the required fee rolling (fichalding those poores where between the broadest between the processing of the rolling should be included to the profit of
2)If the control room/space(s) are located of the designated return landing, the smale detectors located therminate but be writed to obtaine the some namely closed contact as the smale detector of the designated loading. Chequirements for intermittently illuminating the fre hat visual signal in the car operating ponel, either 1) or 2) must be selected.

ğ 1)For a single unit, or group of elerators having control room/space(s) and one common hoisteray, provide additional normally closed conlact representing the control room/space(s) and hoisteray smoke detectors.

2)/if the group contains more than one horletory, and holderoy under detectors are installed, provide one normally closed contact for spatial-bactical. The control is at represent the spatial detectors in the cartiest many lipsock).

28. In Canada provide smaller detectors, become one required, with winsy from the sensing derices to the controller(s) closed provide smaller repords.

Africe exh group of electors, become or sequence, with winsy from the sensing derices to the controller(s) force exh group of derivation, provide to normally closed contact representing the smaller detector at the designated of the force of the designated or the pit.

Bfor each group of develors, provide a normally closed contact representing oil smaller detector located to electron detector in electron develors to the designated decide in the group of the incidence, provide a normally closed contact representing the smaller detector in the sensing close electron.

Only the control of the control of the designated return knoting, the smoke detective horsted immerion should be mixed to dedicate the same marrially cased control of the designated bedding. The control of the designated of the designated control of th

building. The deconnecting present revealed by the Nethodon Decision (Ode or Connectin Decision Code CEC (False 1967)) and the provided with all associated with understanding the connection of the second connection of the

31.3 Phase Touried Store 1 and 1 to the could many appeal, because system with a consideration of reversit supply form.

32.3 Phase Touried Store 1 the could be could be could be could be followed by the best of the condition and grounding studential transferring to the could be could be could be could be condition and grounding studential transferring to the could be condition to the could be co

33. All 125 woll. 15 or 20 annex single-phose receptories included in pile, mochine spoose, control normy/spoor(s) shall be of the ground-lated report—from their by (TSD). A descented inspire-phose receptories uspirity on permission and requer 6(2) previous control in a single-phose respicates uspirity on permission and a requer 6(2) previous receiption and sufficient power for statistics, something such chains, and a single-phose a series described and permission and sufficient power for statistics, operation for something sufficient single-phose a series excited a supply for politories operation of such as the series of series in sufficient power for supply for politories. So, Provide one (1) described and the series in series in series and sufficient supply for public series and series in series and series and series in series and series and series and series are series and series and series and series are series and series are series and series and series and series are series and series are series and series and series are series and series and series and series are series as the bodies and series and series are series and series and series and series and series and series and series are series as the bodies are series and series and series and series are series and series and series and series are series and series and series and series are series as the bodies are series and series and series are series and series are series and series and series and series are series as the series and series and series and series are series as the series and series and series are series as series are series as the series and series and series are series as the series and series and series are series as series as the series and series and series are series as series as series and series and series are series as series as the series and series are series as series as series are series and series and series are series as series are series and series are series as series are series as series and series are series as series

37. (Optional) for elacition toxing on intellegence, illuments, provide o esporate 120 volt, 15 umper, single potent supply with treat STS discovering, each of each liberalist, located on required for inter-communications grayment supply. To catal to the directional for feeling time this building emergency lighting supply if provided, Conduit with feeling time and the feeling time this building.

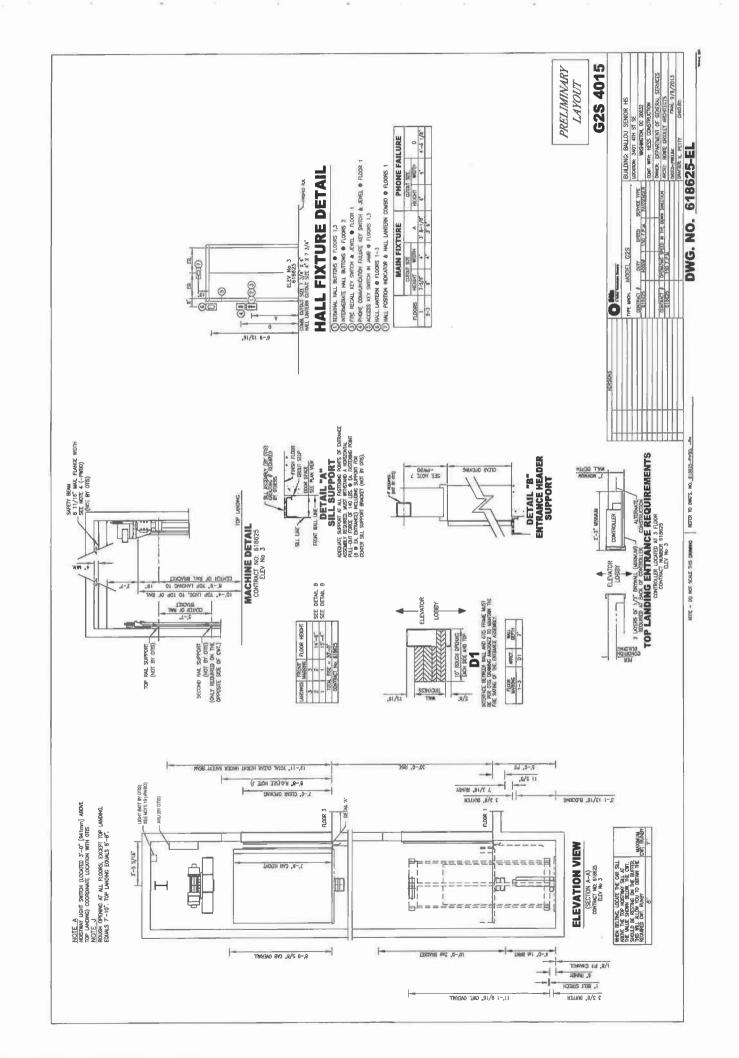
28. [Optional] For installations howing emergency (standar) power, provide the standary power unit not means tor starting clinical power unit on the building power definition of the control of the cont

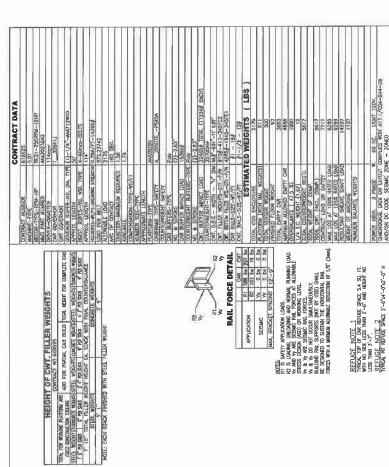
fou agree to intermity and sove Olis hamiless against any and all kability and costs orising out of your failure to a out any of the foregoing requirements.



DWG. NO. 618624-PWBO

REFER TO DWC'S, NO. #18624-PN.





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1,-2 5/8

30VHS 8000 .01/6 C

TUBE STEEL RAIL
BRACKET SUPPORT
CONTRACT NUMBER 618625
BLY NO 3

NOSSE HOSTIWY

-R/9 9-X

5-4" R.D. 7-5 g/h" CAR. WEDE. 7-6 3/4" PLATEDRA

1,-5 13/16" 7-3 13/16

PLAN VIEW

9"-4" CLEAR HOSTNAY & PIT

8'-4 5/16" BRAT. TO BRAT.

7'-9 5/16" D.B.C.

3 1/2"

4 5/B"

<u>+</u>

4'-7 9/16"

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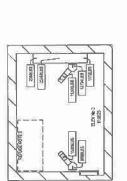
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	RAI	RAIL STACK		
	DESCREPTION	PART NUMBER	TENET	-
	TOP CUT RAIL	AAAA50D09935	17.77	
3	FURL RAMS	AAA45GD51	.0PI	-
	BOTTOM CUT RAIL	AAA450DG13	D-31	\vdash
	HOP CUT RAIL	AAAASOOF898	13.4	
S	FULL RATE	13005 AAAA	16,-0	
	BOTTOM CUT RAL	AAA4500F12	111.00	Н

POWER 4891, 3 PINCE W. 50 HZ. LIGHT 120V. GIAENSONAL DATA ON LAYDU COMPLES WITH AT 1/1,7/554-B44-D9 AD/08 DC CODE. SEGNIC ZONE - ZONEO



PIT PLAN VIEW

POCKET DETAIL
SE NOTES 12 & 13 (REF:-PWBO)
CONTRACT NO. 618625
ELEV NO. 5

LADDER AND

(FORCES SHOWN ARE DOUBLED FOR IMPACT)
FORCES AND BUFFER FORCES DO NOT OCCUR SIMULTANEOUSLY) (RAIL

G2S 4015			BUILDING, BALLOU SENIOR HS	LOCKING MAD 47th ST SE	WHICHWITTEN NO BOOTS	BOTTHOND, IA. CALLS	COURT WITHE HESS CONSTRUCTION	DOMEST DEPARTMENT OF GRACIOL SCHWICTS	agence. Actual demit the after additions.	ACAT: BUNG DARKET AKONIECES	DATED CORE 9/9/2013 FINAL		DOMESTIC N. P.S. I.T. C.
					SKING INC	The second							
			V.		Z	153 F.P. II.			PART IN CHAR			ŀ	
		ŀ	NOT WON MODEL GZS		DUTY	PO0009			CATALONIC S	150 F.P.M.			
			FORT JANG		CONTRACT	618875			CANTON	STATE STATES			L
	1000 Sec. 3												
				-									_

PRELIMINARY

LAYOUT

REFER TO DWG'S. NO. 414625-PHSQ.

DWG. NO. 618625-PN

HOTE - DO HOT SCALE THIS DRIGHT

This blacking lasts must be performed or predict of the world to Dir Dychott Commung (Dirb.) by the University of Documents of Document

All work must be performed per the applicable national and or local codes.

Edebeded Possy/Wick).

1. Provide or cuttle arrows are for elevatir equipment on follows: dry and enclosed, provides roll-or baccess to be elevative broadcast in the ground level, scored style and the style of the ground seek, scored style and the style or the ground seek, scored style or the style or the ground seek or the style or the styl

Objection & Pil Prep/Monk.

4.Provide and also a seek, Leben shaped safety been with a maximum flarge width of 8 11/16" (220mm), from safety will be a seek and it safe to be of the hoststep, capable of withstanding a minimum net line load of 7500 lb (3402 skp) per elevation. Reference Oits Loyout for location, A 4" minimum clearance is required from top of beam to top of hoststeps.

(In purple, safety existing a seek of 240MC single phase, and your controller is to be located in the stront eal, an ordification steel 1-seem neets to be provided and installer. It is to be located per the Oits byout & site to some as the safety beam.

Provide a clear plumb hoistway with variations from the size shown on the Otts loyout not to exceed $-0^{-}/+1^{-}$ (25mm) and not less than the clear dimensions shown on the Otts loyout.

Fronce cast that not execut amenatas about not use an apparation of the control of the control amenatas about not used apparation and apparation of the control of the cont

9.4) Treplación from Estir. An required by the Coccapidational Scridy and Health Administration (1954) (1925-502 B) (1-2) a frestracting removable between 6 of each bisidistry personny of each from Embrades shall be 42" (1067mm) logy, with mid-rail and hick boord and efficient along to 100 less, (507.Ng) of exticat and heritarchal premare.
B) Producedon from Enting Objects.
C) explicación from Enting Objects.
C) explicación from Enting Objects.
B) Producedon from Enting Objects.
C) explicación from Enting Objects.
D) explicación fro

10, Provide a pil floor designed to author vertical forces (based de suite) primació, so considerado por contra mentale contra c Noters:

Items A.) and B.) can be integrated systems.

Hostwoy barricodes and screening shall be constructed, maintained and removed by others.

Hostwoy barricodes and screening shall be constructed. Indicated the construction of the construction

12. Provide and install a fixed wethoul toon loader in each pit as required by governing code and located per Otis typoul or a constrainted with Otis personnel. Loader width and pit wall pocket requirements are shown in the pit plan view on the Otis typoul.

1.3. Include permonent light factor on executions of the latest them 100 ts (10 tc) on measured of the state force, may be all the states of t

If haindon the temperature of the top of the hainteey (incubin pours) became 12. If (of ') and (194" (cf' C).

This ages also haintee the consciousless that is making the life source beautiful miletin less than the form Stopp term. Less doors was require lifetime to the lifetime to the consciousless of the consciousless and the requirement of the consciousless of the consciousless and the consciousless are consciousless of the consciousless of th

Control Roam/Space and Machine Space Prep/Mork
The Previous a state of the control con

23. Instell a permanent light fature at the top of the hoisteray (mochine spoor) at not leasn than 200-lat (19 fc) can arrestred of the inext of the standard surface on the cor when the elevator is at the top landing. Light switch is to the located in the hoisteray per the Oids layout.

Fire Presention. Presp./Work and the conducted in accordance with the required for rating (including those pieces 24, Previde between value designed and conducted in accordance with the work of the books and broaded foreignings, and only other penetration into the hostensy waits).

23, in the United States produce somes detectors, located on required, with wring from the sensing devices to the contradictly developed by Oths.

Afric each group of electrica, provide a normally closed contact representing the smoke detector of the designated return leading.

The foreign ope of electrica, provide a normally closed contact may resimiling all smoke detectors because in indicate, or central normally proper but lad the smoke detector or the designation frature indicate (see scores) or the modern detector or destinated instance because in the consistency designation of designation before.

1) if a smake detector is located in the holismay of or below the lower of the two recall landings, it shall be wired to address the same normally closed contact as the smake detector located in the looky at the lower of the two recall landings.

CRequirements for intermittently illuminating the fire hat visual signal in the car operating panel, either 1) or 2) must be selected. 2)if the control roam/space(s) are located at the designated return landing, the smake detectors located therein shall be wired to activate the same normally closed contact as the smake detector at the designated landing

common hoistway, provide one hoistway smoke detectors. 1)For a single unit, or group of elevators having control room/space(s) and one additional normally closed contact representing the control room/space(s) and it

2) If the group contains more than one hoistway, and hoistway smoke delectors are installed, provide one normally closed contact for space betacklier. The contact is to represent the smoke delectors in the contact room/spoole(s) and choosing that porticular releases.

26. In choosing produce amovie detectors, located as required, with wining from the sensing devices to the controller(s) designed by Oils.

After each group of electors, provide o mornably closed control representing the smoke detector of the designed return leading only if provided, from the sensing device in the pit.

Bird each group of electors, provide a mornably closed contact representing tall smoke detector of the designed teles in the rest of the designed teles in the sension elector of the designed teles in the state of the designed return the sension teles in the sension elector of the designed return the sension.

C.For each group of elerctors, provide a normally closed contact representing the smoke detector in the elerctor motiving space.

Differ control space is chorcated to the designated regular miniety, the super detectors located therein shall be wired to occinite the arean examined beauties, therefore are examined beauties, provide in calculation to the down or normally observed control to the superior of the top of in the top of the hostinety (for the Fire Hit in the Elevation).

20, in the lathed Schae, if switchers are installed in the including of an except on means to advantability of controls the lathed Schae, if switchers are given of the pose tappy) used to more the electron upon or prior to the opposition of vest or increased (unless proceded or lather included or lather in expected (unless probabled by location-color). Since the opposition of vest or increased (unless probabled by location-color). Since the control is the control of the color of th

Selection entrones.

29. Provide control reconfigurate (1) and door to code complaint fire-residire construction.

30. 3 Pisses Power (Mil. — Provide or permanent three (3) phase electrical-leader system with a seponde construction and the fire of the part of the part of the construction of the constructi

building. The deconnecting mean moviet by the Nethonal Deciving Loke or Connection Burdons. On the Connection Burdons and Connection Burdons and Connection Burdons and Revenue Connection Burdons and Revenue Connection Burdons. The Connection Burdons and Revenue Connection and Revenue Connection Burdons and Revenue Revenue Connection Burdons and Revenue Revenue Connection Burdons and Revenue Revenu

31.3 Phose Pearl Coulcil Resear Control Round-Space – Provide to permonent Unrer (3) phose destrictal-recker system with a consistent serior destruction of the Round-Space Land Round-Space (2). Localed per Old should, Freeder consistent on the Control Round-Space (3). Localed per Old should Freeder consistent on the Control Round-Space (3). Localed per Old should Freeder consistent on the Control Round-Space (3). Localed per Old should Freeder consistent on the Control Round-Space (3). Localed Round-Space (3). Localed Round-Space (4). Local

37. [Optional] For electrics howing on intro building intercom, provide a separate 120 volt, 15 ampert, single phase poer supply with those SPSI disconnect amend not circuit broaders, located ca required for inter-communicating system pears supply. Climit to be amonged for feeling from the building emergency lighting supply if provided. Conduit and wing for remodely located inter-communicating stations.

38. [Optional] For institutions buring emergency (standby) power, provide the strandby power unit and means for starting the formal power and the starting of december shading power definition of december shading power addition of the start of the starting of the shading power addition of the starting power to operate one or more conditions and to perform the shading formal power to december shading power additional power to operate the starting condition and the starting from the shading power to obtain the other to see used or formally closed or indiction of power brands on the starting shading benefit as the shading shading trunder to moral ord/or emergency (standby) power by an oblitable power of or oblitable power and ordinate power of the shading power assumes. The arranges of standby power assume power specifical power by the shading power passing passing passing p Note: The building Emergency (Standby Power) Generator system used to operate the elevator(s) shall be capable supplying non-linear loads.

nnify and save Otis harmiless against any and all liability and costs arising out of your failure to carry addition requirements.

COMPUTE COPAGNATION OF COPAGNATION O BUTCHNS: BALLOU SENIOR HS: LOCATION 3401 ATH ST SE WISHINGTON DC 20032 COME, WITH PESS CONSTRUCTION SOCKE.

DWG. NO. 618625-PWBO

REPER TO DWG'S. NO. 819425-PM. -

